

**UTILITY PATENT APPLICATION IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE**

SYSTEM AND METHOD FOR RECONCILING EMPLOYMENT BENEFITS

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Title: **SYSTEM AND METHOD FOR RECONCILING EMPLOYMENT BENEFITS**

5 RELATED APPLICATIONS

FIELD OF THE INVENTION

BACKGROUND OF THE INVENTION

consumers unable to service this debt is also increasing, prompting the U.S. Congress to recently modify the bankruptcy code to, *inter alia*, make it more difficult to qualify for eligibility to eliminate consumer debt in bankruptcy proceedings. See "Debt and Bankruptcy", *vide supra*. As such, ample indications exist that the servicing of debt will continue to be a problem in the future for many generations of consumers.

As background, the common law concept of "debt" was generally a lawsuit seeking recovery of a discrete sum of money. For example, if a creditor could not precisely compute or otherwise determine the amount of money owed by the debtor, the creditor was required to resort to other legal mechanisms of recovery – not that of an action sounding in "debt." In modern law, however, the meaning of the term "debt" is not so rigidly defined and may be regarded more generally as that which any person or legal entity owes to another – pecuniary or otherwise. See "Debt", Microsoft® Encarta® Online Encyclopedia 2001, <http://encarta.msn.com>, ©1997-2001 Microsoft Corporation. One particular type of debt is known as "consumer debt" and generally refers to the short-term and intermediate-term debt used to finance the purchase of goods and/or services used for personal consumption. Consumer debt may be embodied as either cash loans or, in some cases, sales credit. In the modern industrialized world, as more people have come to be employed to earn regular income in the form of wages and salaries, and with the growth of successful mass marketing of durable consumer goods, debt financed through consumer credit has increased rather dramatically. See "Consumer Credit", Britannica® Online Encyclopedia, <http://britannica.com>, ©2001 Britannica.com, Inc.

Additionally, many employers are experiencing difficulty attracting and retaining highly qualified human resources. This has led some employers to offer benefits to attract and retain the most qualified employees, such as, for example: paid holidays, vacation, personal leave, funeral leave, jury duty, military leave, sick leave, family leave, short and long-term disability insurance, medical insurance, dental insurance, vision plans, life insurance, retirement plans, stock options, profit sharing, bonuses, etc. Competition among market employers can often prompt individual employers to modify or otherwise improve their offering of benefits to prospective and existing employees in

order to leverage an economic advantage in the human resources market. As can be seen from many of the above examples of employment benefits, this may often be accomplished by addressing the needs and/or desires of employees that would otherwise have to be met by the employee spending regular earned income.

5 There is a need, therefore, within the employment benefit and human resources art, to recognize and accommodate the needs of prospective and existing employees having consumer debt obligations which may be serviced by at least partial employer payment of an employee's consumer debt obligation as a benefit of employment. There is also a need to match prospective employees with employers that provide at least
10 partial payment of employee consumer loans as a benefit of employment. There is also a need for third-party reconciliation of such consumer debt payments as a benefit of employment.

SUMMARY OF THE INVENTION

In general, the present invention discloses an improved system and method for the reconciliation of employment benefits. More specifically, the present invention may be embodied as a job matching service for matching current loan holder employee candidates with employers, where the employer pays a fee to at least partially defray the loan obligation of the candidate employee upon commencement of employment. Once the matching engine successfully places the employee, information obtained from an employee's profile is used to coordinate a funding request to the employer and reconcile payment with the servicer of the employee's loan to pay down the outstanding principal balance and/or interest expense.

25 The candidate employee may be a student seeking a summer internship position, so the student accesses the system to create a student profile which may include, for example, personal identification data, information regarding outstanding student loans, skills and qualifications, internship preferences, *etc.* A data processing and matching engine then correlates the student's profile with employer profiles containing information such as, for example, available internship positions, required skills and qualifications, compensation data, benefit data, *etc.* After the student accepts an internship offer, the

present invention issues a funding request to the employer. Thereafter, subsequent reconciliation of payment of the student's academic loan obligation is generally transparent to both the student intern and the employer.

The present invention thus provides for improved accommodation of the needs of prospective and/or existing employees having consumer debt obligations whereby the employee's debt is serviced, at least partially, by employer payment of the obligation. Moreover, the disclosed method also provides for (1) matching prospective employees with employers; and (2) third-party reconciliation of such consumer debt payments as a benefit of employment. Additional advantages of the present invention will be set forth in the detailed description which follows, and in part will be obvious from the detailed description, or may be learned by practice of the invention. The objects and advantages of the invention may be realized by means of the instrumentalities, methods and combinations particularly pointed out in the claims.

BRIEF DESCRIPTION OF EXEMPLARY DRAWINGS

The above and other features and advantages of the present invention are hereinafter described in the following detailed description of illustrative embodiments to be read in conjunction with the accompanying drawings and figures, wherein like reference numerals are used to identify the same or similar system parts and/or method steps in the similar views, and:

FIG. 1 is a diagram of an exemplary system for matching employee candidates with available employment positions in accordance with one aspect of the present invention.

FIG. 2 is a diagram of an exemplary system for matching employee candidates with available employment positions in accordance with another aspect of the present invention.

FIG. 3 is a diagram of an exemplary system for matching employee candidates with available employment positions in accordance with yet another aspect of the present invention.

FIG. 4 is a diagram of an exemplary system for matching employee candidates with available employment positions in accordance with still another aspect of the present invention.

FIG. 5 is a flowchart of an exemplary method for matching employee candidates with available employment positions in accordance with one aspect of the present invention.

FIG. 6 is a flowchart of an exemplary method for third-party reconciliation of employer payment of an employee debt obligation in accordance with one aspect of the present invention.

DETAILED DESCRIPTION OF EXEMPLARY EMBODIMENTS

The following descriptions are of exemplary embodiments of the invention, and are not intended to limit the scope, applicability or configuration of the invention in any way. Rather, the following description is intended to provide convenient illustrations for implementing various embodiments of the invention. As will become apparent, various changes may be made in the function and arrangement of the elements described in these embodiments without departing from the spirit and scope of the invention.

Various exemplary implementations of the present invention may be applied to any employment benefit model utilizing, for example, a computer-based system and method for the reconciliation of employment benefits. Representative implementations include, for example, the payment of: student loans; automobile loans; recreational vehicle loans; marine loans; mortgages; secured and/or unsecured consumer loans; credit card debt; or any other type of loan and/or debt. As used herein, the terms "loan" and "debt", or any variation thereof, includes anything that is currently susceptible to being characterized as any financial obligation or any similar characterization. By way of example, a detailed description of an exemplary application, namely the reconciliation

and third-party payment of a student loan obligation, is provided as a specific enabling disclosure that may be generalized by those skilled in the art to any application of the disclosed system and method of employment benefit reconciliation in accordance with the present invention.

5 The subject invention relates to a process of reconciliation and third-party payment of employee debt obligations by an employer as a benefit of employment. One exemplary embodiment set forth herein relates to an employment benefit system and method for: (1) matching first-party students with internship employment opportunities; (2) at least partial second-party employer payment of a student loan held by the student
10 intern; and (3) third-party reconciliation of the student loan payment. It will be appreciated, however, by one skilled in the art that the principles of the present invention may be employed to ascertain and/or realize any number of other benefits associated with employer payment of an employee debt obligation as a benefit of employment, but not limited to, providing incentives for attracting and/or retaining human resources.

15 In accordance with one exemplary embodiment of the present invention, as depicted in Figure 1, a computer-based Job Clearinghouse ("JCH") system **300** (e.g., "third-party") is disclosed, which comprises any software and/or hardware suitably configured for (1) matching students with internship employment opportunities; (2) at least partial employer payment of a student loan held by the student intern; and/or (3) third-party reconciliation of the student loan payment. In one embodiment, JCH system **300** includes: a matching engine **310**; a reconciliation engine **320**; and a database **330**. As used herein, students, interns, employers, etc. include any person, organization, entity, group, software, hardware, business and/or the like.

25 Matching engine **310** is any software and/or hardware suitably configured to match students with opportunities. In accordance with one exemplary embodiment of the present invention, JCH matching engine **310** comprises any software and/or hardware system suitably adapted to retrieve and correlate employer profile data **115** with student profile data **215** stored in the JCH database **330**. Additionally, the JCH

reconciliation engine **320** comprises, for example, any software and/or hardware system suitably adapted to: retrieve and/or process data stored in JCH database **330**; issue funding requests to an employer **100** (e.g., "second-party"); receive funds from an employer **100** in response to the funding request; route received funds to a financial institution; and/or notify the student **200** (e.g., "first-party") when the financial institution has received funds. Matching engine **310** may also be configured to communicate with database **330** by a data communications path **315**. Reconciliation engine **320** is any software and/or hardware suitably configured to reconcile loan data. Reconciliation engine **320** also may be similarly configured to communicate with database **330** by, for example, another data communications path **325**.

The database **330** is configured to respond to queries and/or other database operations originating from, for example, the JCH matching engine **310**. Additional components, such as, for example, Access Sequel Server, Oracle, Mysequel, Interbase, etc., may be used to provide, a suitable database management system. Database **330**, however, may be any type of database, such as relational, hierarchical, object-oriented, flat file and/or the like. Common database products that may be used to implement database **330** include, for example, DB2 by IBM (White Plains, NY), any of the database products available from ORACLE® CORPORATION (Redwood Shores, CA), MICROSOFT® ACCESS by MICROSOFT® CORPORATION (Redmond, Washington), or any other database product now known or hereafter derived by those skilled in the art. Database **330** may be organized in any suitable manner, including, for example, data tables, look-up tables or any matchable data structures now known or hereafter derived by those skilled in the art.

Association of certain data in the database **330** may be accomplished through any data association technique known and practiced in the art. For example, the association may be accomplished either manually or automatically. Automatic association techniques may include, for example, a database search, a database merge, GREP, AGREP, SQL, and/or the like. The association step may be accomplished by a database merge function, for example, using a "key field"; where said key field, for example, partitions the database according to a high-level class of

objects defined by the key field. For example, a certain class may be designated as a key field in both a first data table and a second data table, and the two data tables may then be merged on the basis of the class data in the key field. In one embodiment, the data corresponding to a key field in each of the merged data tables is preferably the same. However, data tables having similar, though not identical, data in the key fields may also be merged by using AGREP, for example.

In one exemplary embodiment of the present invention, database **330**, matching engine **310** and reconciliation engine **320** may be suitably adapted to reside on a computer-based server and/or host data processing system with communications paths **315** and **325** further comprising data stream transmission methods that include, for example: electronic; infrared; radio frequency; microwave frequency; optical; or any other I/O data stream method or protocol now known, or hereafter derived, by those skilled in the art. In an alternative exemplary embodiment, communications paths **315** and **325** may comprise a single shared I/O data path. In yet a further alternative exemplary embodiment in accordance with the present invention, database **330**, matching engine **310** and reconciliation engine **320** may reside entirely or partially on a remote server or host data processing system, wherein communications paths **315** and **325** embody I/O data paths utilizing, for example, any number of data traffic protocols, such as: TCP/IP; IPX/SPX; Appletalk, IP-6, NetBIOS, OSI or any existing or future data traffic protocols now known or hereafter derived by those skilled in the art.

In one embodiment of the present invention, the JCH system is adapted to receive information from, for example, an employer access terminal **105** and a student access terminal **205**. Terminals **105** and **205** are any software and/or hardware suitably configured to provide their respective users (e.g., employer **100** and/or student **200**) with a user interface, for example, to populate the JCH database **330** with profile data **115** and **215**, respectively. The user interface provided by the employer terminal **105** or the student terminal **205** may comprise, for example: HTTP; HTTPS; HTML; XML, DHTML; ASP; CGI; a Windows application; an X-Windows application; ActiveX; Visual Basic script; Javascript; Perl script; a telnet session; an ftp session; a gopher session; a command line interface; a text-based interface; a graphic user interface or any user

interface now known or hereafter derived by those skilled in the art. In one exemplary application, an employer **100** gains access to submit employer profile data **115** to the JCH system **300** for inclusion in the JCH database **330** by means of a data communications path **120**. In a related exemplary application, a student **200** gains access to submit student profile data **215** to the JCH system **300** for inclusion in the JCH database **330** by means of another data communications path **220**. Employer **100** and student **200** may interact with their respective terminals **105** and **205** by any number of I/O means (**110** and **210**, respectively), such as, for example: a monitor; a keyboard; a keypad; a mouse; a stylus; a lightpen; a digitizing tablet; a touch-screen; speech recognition; or any other I/O method now known or hereafter derived by those skilled in the art.

In one exemplary embodiment, employer profile data **115** may include any employer-related data, for example: employer identification; job opportunities; compensation information; benefits information; job location; employment qualifications; or the like. In another exemplary embodiment, student profile data **215** may include any student-related data, for example: student identification; school; year of graduation; major/minor fields of study; student loan information; GPA; career interests; willingness to relocate or the like.

In one alternative exemplary embodiment, as depicted in Figure 2, employer access terminal **105** may be further adapted to communicate with JCH matching engine **310** by means of a data communications path **125** in order to allow the employer **100** to selectively query the matching engine **310** to provide information relating to students **200** who may at least partially match the employer's criteria. In yet another exemplary embodiment, as depicted in Figure 3, student access terminal **205** may be further adapted to communicate with JCH matching engine **310** by means of another data communications path **225** in order to allow the student **200** to selectively query the matching engine **310** to provide information relating to employers **100** who may at least partially match the student's criteria. Communications paths **125** and **225**, in one embodiment, may comprise any I/O data path including, for example, any number of data traffic protocols, such as: TCP/IP; IPX/SPX; Appletalk, IP-6, NetBIOS, OSI or any

existing or future data traffic protocol now known or hereafter derived by those skilled in the art.

In yet a further exemplary embodiment in accordance with the present invention, as depicted in Figure 4, student access terminal **205** and/or employer access terminal **105** may communicate with the JCH system **300** via network-based data communications paths (e.g., **122**, **222**, and **410**), wherein communications paths **122**, **222** and **410** may comprise any network I/O data path including, for example, any number of network data traffic protocols, such as: TCP/IP; IPX/SPX; Appletalk, IP-6, NetBIOS, OSI or any existing or future network data traffic protocols now known or hereafter derived by those skilled in the art.

In general, with reference to Figure 5, an exemplary aspect of the employment benefit reconciliation method in accordance with the present invention, may proceed with a student **200** accessing a terminal **205** (step **605**) to create and submit a student profile **215** (step **615**) to the JCH system **300**. As previously described, JCH system **300**, in one exemplary embodiment, comprises a computer-based data processing system and method configured for, *inter alia*, matching students with employment opportunities, wherein said employment opportunities include, as a benefit of employment, employer payment of a student's debt obligation, such as, for example, a student loan. JCH system **300** is further configured to receive employer profiles **115** from employers **100** (step **610**) for correlation with student profiles **205** (step **620**). In another exemplary embodiment, after the JCH system **300** matches a student profile **215** with employer profiles **115**, employment options are presented to the student **200** (step **625**); and student **200** thereafter identifies which of the presented employment options are desired (step **630**). Alternatively, in accordance with another exemplary embodiment of the present invention, after the JCH system **300** matches an employer profile **115** with student profiles **215**, candidate options are presented to the employer **100**; employer **100** thereafter identifies which of the presented candidates are desired. The employer selects via any input means, now known or hereafter derived by those skilled in the art (for example: a check-box field, radio field, command button, text

highlight, etc.), configured to indicate on the interface screen those individuals that employer **100** may be interested in pursuing for an interview to fill said position.

JCH system **300** then sends student profile information **215** and/or associated job information **115** to the prospective employers **100** identified from step **630** (step **635**). Employer **100** may then interview the student **200** (step **640**), and after a successful interview where the employer **100** agrees to offer the student **200** a position (step **645**), the JCH system **300** completes the match process by, for example, recording the match and sending confirmation to the student **200** and the employer **100** (step **650**). Additionally, employer **100** has the ability to re-enter the system to reconcile previous selections with the results obtained from the interview process, indicating if any prospective student **200** was successful or not. In one exemplary embodiment of the present invention, the JCH system **300** further issues a disbursement request to the employer **100** upon commencement of the student's employment – the employer will provide an estimated time of arrival for the job period (*i.e.*, start date and period of employment) which will trigger, for example, an email to the employer to confirm completion of the period of employment that will be collected by the system; disbursed funds may then be substantially directly applied to offset, for example, the student's academic loan obligation(s).

In another embodiment of the present invention, after the student **200** begins employment, the employer sends an electronic funds transfer (EFT) to an account accessible by the JCH system **300** for subsequent reconciliation of payment with the servicer(s) of the student employee's loan account(s). In an alternative exemplary embodiment, the JCH system **300** may be adapted to batch and reconcile multiple student loan payments with the servicers of multiple loan accounts belonging to a single student, or to batch and reconcile multiple student loan payments with the servicers of the loan accounts for multiple students. Batching may be accomplished, for example, using CommonLine file formatting, enabling the JCH system to collect relevant student information (*i.e.*, successful completion of the employment; at least half-time attendance at an accredited Federal Family Education Loan Program (FFELP) institution; eligibility requirements as dictated by FFELP guidelines for qualification for a federal loan; in

addition to other student loan information) and to send a subsequent EFT transaction to the individual borrower's loan servicer to apply the JCH payment to the individual student loan record.

In accordance with another exemplary embodiment of the present invention, student profiles **215** and employer profiles **115** are supplied to the JCH system **300** to populate the JCH database **330** as depicted in Figure 1. With further reference to Figure 2, another exemplary embodiment of the present invention includes a student access terminal **205** and an employer access terminal **105** for communicating with the profile database **330** and/or the JCH matching engine **310**. Student **200** may submit their profile **215** for inclusion in the database **330** using an access protocol as previously described. Student access interface **205** may additionally be configured to provide student **200** with, for example, a graphic user interface (GUI) for entering student profile information **215** (step **605**) for submission to the database **330** (step **615**). In another exemplary embodiment, employer **100** may submit their profile **115** to the database **330** using an access interface **105** protocol as previously described. Employer access interface **140** may also be configured to provide employer **100** with, for example, a GUI for entering employer profile information **115** (step **600**) for submission to the database **330** (step **610**). In another exemplary embodiment of the present invention as previously described, employer access interface **105** may be suitably adapted to communicate with the JCH matching engine **310** to obtain a list of students **200** matching the employer's profile criteria **115**. Thereafter, in another exemplary embodiment of the present invention, employer **100** contacts student **200**, via communications path **130** (Figure 2) to schedule an interview. Communications path **130** may include, for example: a telephone call, an Email message, a voicemail message, a letter or any method of personal communication now known or hereafter derived by those skilled in the art. In yet another exemplary embodiment of the present invention as previously described, student access interface **205** may be suitably adapted to communicate with the JCH matching engine **310** via data communications path **225** (Figure 3) to obtain a list of employers **100** matching the student's profile **215**. Such matching criteria may include, for example, location, student status and class,

age, willingness to relocate or such similar considerations as when a person is looking for and applying for an open employment position.

After an interview has been conducted and the employer **100** determines that there exists a favorable match, student **200** is hired and, in one exemplary embodiment of the present invention, the employer **100** notifies the JCH system **300** of the student's start date (step **700**) as shown, for example, in Figure 6. The JCH system **300** accesses the student's profile **215** (step **705**) contained, for example, in the database **330** to determine the student loan lender, servicer, account number, *etc.*, and then issues a student loan payment disbursement request (step **710**) to the employer **100**. When the student **200** arrives on site, an employer EFT is sent to transmit the debt payment benefit to the JCH system **300** (step **715**). The reconciliation engine **320** of the JCH system **300** then disburses funds to the appropriate student loan servicer(s) (step **720**).

In one embodiment of the present invention, as shown, for example, in Figure 6, JCH reconciliation engine **320** is additionally configured to issue a notification of payment (step **725**) to the student **200** after and/or concurrent with, for example, reconciliation of payment to the loan servicer (step **720**). In an alternative exemplary embodiment, reconciliation of payment may be made to a plurality of student loan servicers either individually or as a result of a batch payment process.

In another exemplary embodiment of the present invention as previously described, students **200** and employers **100** communicate with the JCH matching engine **300** over a network **500** as generally depicted, for example, in Figure 4. Additionally, the present invention anticipates that the database **330** may be hosted remotely from the JCH matching engine **310**, in which case the communication link **315** between the matching engine **310** and the database **330** may also be embodied as a network connection. One skilled in the art will appreciate that such a network may include any system for exchanging data, such as, for example: the Internet; an intranet; an extranet; WAN; LAN; wireless communications protocol and/or the like. It is noted

that the network may also be implemented as other types of networks, such as an interactive television (ITV) network.

In another exemplary embodiment, the system and method of reconciling an employment benefit according to the present invention includes a host server or other computing systems including a processor for processing digital data, a memory coupled to said processor for storing digital data, an input digitizer coupled to the processor for inputting digital data, an application program stored in said memory and accessible by said processor for directing processing of digital data by said processor, a display coupled to the processor and memory for displaying information derived from digital data processed by said processor and a plurality of databases, said databases including data that could be used in association with the present invention.

The present invention may be described herein in terms of functional block components, optional selections and various processing steps. It should be appreciated that such functional blocks may be realized by any number of hardware and/or software components configured to perform the specified functions. For example, the present invention may employ various integrated circuit components, e.g., memory elements, processing elements, logic elements, matchable data structures, and the like, which may carry out a variety of functions under the control of one or more microprocessors or other control devices. Similarly, the software elements of the present invention may be implemented with any programming or scripting language such as, for example: C; C++; Java; COBOL; assembler; PERL; XML; *etc.*, or any programming or scripting language now known or hereafter derived by those skilled in the art, with the various algorithms being implemented with any combination of data structures, objects, processes, routines or other programming elements. Further, it should be noted that the present invention may employ any number of conventional techniques for data transmission, signaling, data processing, network control, and the like. Still further, the invention may optionally be configured to use a client-side and/or server-side scripting language, such as JavaScript, VBScript or the like. Additionally, the present invention may be adapted or otherwise suitably configured to use and/or process encrypted data traffic. For a basic introduction of cryptography, see the text by Bruce Schneider entitled "Applied

Cryptography: Protocols, Algorithms, And Source Code In C," published by John Wiley & Sons (second edition, 1996), which is hereby incorporated by reference.

It should be appreciated that the particular implementations of the present invention shown and described herein are illustrative of the invention and the inventor's conception of the best mode and are not intended to otherwise limit the scope of the present invention in any way. Indeed, for the sake of brevity, conventional data networking, application development and other functional aspects of the systems (and components of the individual operating components of the systems) may not be described in detail herein. Furthermore, the connecting lines shown in the various figures contained herein are intended to represent exemplary functional relationships and/or physical couplings between the various elements. It should be noted that many alternative or additional functional relationships or physical connections may be present in a practical system.

The computing units may be connected with each other via a data communication network. The network may be a public network and assumed to be insecure and open to eavesdroppers. In one exemplary implementation, the network may be embodied as the Internet. In this context, the computers may or may not be connected to the Internet at all times. Specific information related to data traffic protocols, standards, and application software utilized in connection with the Internet may be obtained, for example, from DILIP NAIK, INTERNET STANDARDS AND PROTOCOLS (1998); JAVA 2 COMPLETE, various authors, (Sybex 1999); DEBORAH RAY AND ERIC RAY, MASTERING HTML 4.0 (1997). LOSHIN, TCP/IP CLEARLY EXPLAINED (1997); all of these texts being incorporated herein by reference. A variety of conventional communications media and protocols may be used for data links, such as, for example: a connection to an Internet Service Provider (ISP) over the local loop as is typically used in connection with standard modem communication; cable modem; Dish networks; ISDN; Digital Subscriber Line (DSL) or various wireless communication methods. Employment benefit reconciliation systems, in accordance with the present invention, might also reside within a local area network (LAN), which interfaces to a network via, for example, a leased line (T1, T3, etc.). Such communication methods are

generally well known in the art, and are covered in a variety of standard texts. See, e.g., GILBERT HELD, UNDERSTANDING DATA COMMUNICATIONS (1996), hereby incorporated by reference.

Users may interact with the system via any input device such as: a keyboard; mouse; kiosk; personal digital assistant; handheld computer (e.g., Palm Pilot®); telephone; mobile phone and/or the like. Similarly, the invention could be used in conjunction with any type of personal computer, network computer, workstation, minicomputer, mainframe, or the like running any operating system such as: any version of Windows; Windows XP; Windows Whistler; Windows ME; Windows NT; Windows 2000; Windows 98; Windows 95; MacOS; OS/2; BeOS; Linux; UNIX or any operating system now known or hereafter derived by those skilled in the art. Moreover, the invention may be readily implemented with TCP/IP communications protocols, IPX, Appletalk, IP-6, NetBIOS, OSI or any number of existing or future protocols. Moreover, the system contemplates the use, sale and/or distribution of any goods, services or information having similar functionality described herein.

As will be appreciated by one of ordinary skill in the art, the present invention may be embodied as a method, a system, a device, and/or a computer program product. Accordingly, the present invention may take the form of an entirely software embodiment, an entirely hardware embodiment, or an embodiment combining aspects of both software and hardware. Furthermore, the present invention may take the form of a computer program product on a computer-readable storage medium having computer-readable program code means embodied in the storage medium. Any suitable computer-readable storage medium may be utilized, including hard disks, CD-ROM, optical storage devices, magnetic storage devices, and/or the like.

Data communication is accomplished through any suitable communication means, such as, for example: a telephone network; Intranet; Internet; point of interaction device (personal digital assistant, telephone, mobile phone, kiosk, etc.); online communications; off-line communications; wireless communications and/or the like. One skilled in the art will also appreciate that, for security reasons, any databases,

systems, or components of the present invention may consist of any combination of databases or components at a single location or at multiple locations, wherein each database or system includes any of various suitable security features, such as: firewalls; access codes; encryption; de-encryption; compression; decompression and/or the like.

5 The present invention is described herein with reference to block diagrams and flowchart illustrations of methods, apparatuses (e.g., systems), and computer program products according to various exemplary aspects of the invention. It will be understood that each functional block of the block diagrams and the flowchart illustrations, and combinations of functional blocks in the block diagrams and flowchart illustrations,
10 respectively, can be implemented by computer program instructions. These computer program instructions may be loaded onto a general purpose computer, special purpose computer, or any other programmable data processing device to produce a machine, such that the instructions which execute on the computer or other programmable data processing device create means for implementing the functions specified in the flowchart block or blocks.

 These computer program instructions may also be stored in a computer-readable memory that can direct a computer or other programmable data processing device to function in a particular manner, such that the instructions stored in the computer-readable memory produce an article of manufacture including instruction means which implement the function specified in the flowchart block or blocks. The computer program instructions may also be loaded onto a computer or other programmable data processing device to cause a series of operational steps to be performed on the computer or other programmable device to produce a computer-implemented process such that the instructions which execute on the computer or other programmable device
25 provide steps for implementing the functions specified in the flowchart block or blocks.

 Accordingly, functional blocks of the block diagrams and flowchart illustrations support combinations of means for performing the specified functions, combinations of steps for performing the specified functions, and program instruction means for performing the specified functions. It will also be understood that each functional block

of the block diagrams and flowchart illustrations, and combinations of functional blocks in the block diagrams and flowchart illustrations, can be implemented by either special purpose hardware-based computer systems which perform the specified functions or steps, or suitable combinations of special purpose hardware and computer instructions.

5 In the foregoing specification, the invention has been described with reference to specific embodiments. However, it will be appreciated that various modifications and changes can be made without departing from the scope of the present invention as set forth in the claims below. The specification and figures are to be regarded in an illustrative manner, rather than a restrictive one, and all such modifications are intended
10 to be included within the scope of the present invention. Accordingly, the scope of the invention should be determined by the appended claims and their legal equivalents, rather than by merely the examples given above. For example, the steps recited in any of the method or process claims may be executed in any order and are not limited to the order presented in the claims.

Benefits, other advantages, and solutions to problems have been described with regard to specific embodiments. However, the benefits, advantages, solutions to problems, and any element(s) that may cause any benefit, advantage, or solution to occur or become more pronounced are not to be construed as critical, required, or essential features or elements of any or all the claims. As used herein, the terms
20 "comprises", "comprising", or any variation thereof, are intended to cover a non-exclusive inclusion, such that a process, method, article, or apparatus that comprises a list of elements does not include only those elements but may include other elements not expressly listed or inherent to such process, method, article, or apparatus. Further, no element described herein is required for the practice of the invention unless
25 expressly described as "essential" or "critical". Other combinations and/or modifications of the above-described structures, arrangements, applications, proportions, elements, materials or components used in the practice of the present invention, in addition to those not specifically recited, may be varied or otherwise particularly adapted by those skilled in the art to specific environments, manufacturing or design parameters or other
30 operating requirements without departing from the general principles of the same.